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February 4, 2009

Ms. Terese VanDonsel
United States Environmental Protection Agency
Office of Superfund, Region 5
SR-6J
77 West Jackson
Chicago, IL 60604-3590

Re: Supplement to Remedy Performance Monitoring Results
Fields Brook Superfund Site, Ashtabula, OH

Dear Terese:

On behalf of the Fields Brook Action Group (FBAG), this document supplements the November 25, 2008 Remedy Performance Monitoring Results report regarding the 2008 monitoring of soil and sediments at the Fields Brook Superfund Site in Ashtabula, Ohio. The purpose of this supplement is twofold:

- to provide the results of additional sediment data collected in November, 2008 in the DS Tributary; and
- to provide further analysis of the monitoring data collected in June – November, 2008 relative to the human health-based risk standards that defined the cleanup objectives for remediation of the site.

1 Supplemental Monitoring in the DS Tributary (EU5)

Monitoring of sediments in the northeast end of the DS Tributary (EU5) was conducted in November, 2008, as a follow-up and supplement to the June and August 2008 monitoring of Fields Brook. Five sediment samples (DS-SD09 – DS-SD13) were collected at five foot intervals in sediments located directly west of State Road, where DNAPL seeps have been observed. Sample locations are shown on Figure 1. The samples were analyzed for PCBs, VOCs, and SVOCs, including key compounds hexachlorobenzene, hexachlorobutadiene, tetrachloroethene and trichloroethene.

Hexachlorobenzene was found in each of the five sample locations at concentrations above the cleanup goal (CUG). Concentrations at two of the five sample locations were above the confidence removal goal (CRG). The maximum observed concentration was 130 mg/kg. Elevated concentrations were also found for hexachlorobutadiene and several of the chlorinated VOCs. Table 1 presents a summary of the results for these key compounds of concern, with a comparison of the concentrations to the applicable CRGs. Appendix A provides the complete data tables for these samples.

Sediments in the area between State Road and sample location DS-SD09 (inclusive) need to be remediated. We understand that Detrex will further investigate this area and the DS Tributary overall, and undertake appropriate remedial actions.

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2 Comparison of Monitoring Results to CUGs

Protection of human health at the Fields Brook site is addressed by the risk-based CUGs developed for both the sediment and Floodplain Wetlands Area (FWA) soils. These CUGs are to be met on average across an Exposure Unit (EU). This is accomplished with Remedial Action Levels (RALs). RALs are equivalent to CRGs, which is the term most often used in Fields Brook documents. The RALs, or CRGs, represent concentrations above which remediation is required, and yield a post-remedy average equivalent to or lower than the CUG. The Nov. 25, 2008 Remedy Performance Monitoring Results report compared the 2008 monitoring data to the CRGs. This Supplement further compares the average concentrations (upper confidence limits, or UCLs) observed in the 2008 monitoring data to the CUGs. Sample locations are shown on Figures 1 to 3.

The following steps describe the analysis presented here:

- Chemical concentrations at all sediment sampling locations in the brook and in the top one foot of all soil sampling locations in the FWA are compared to the appropriate CUG (*e.g.* residential *vs.* industrial). Chemicals with no CUG exceedances are not considered further.
- Chemicals with CUG exceedances are grouped according to sediment EU and FWA EU. The north and south sides of the Brook in FWA EU6 are considered separately[1]. The limited soil monitoring data in all other FWA EUs prevents separate consideration of the north and south sides of the Brook.
- For each chemical in each EU with a CUG exceedance, the UCL is calculated, using the Pro-UCL computer program, and compared to the CUG. Non-detected concentrations are included and treated as part of the data distribution by Pro-UCL.
- Some EUs include areas identified for remediation due to the presence of chemical concentrations in substantial exceedance of CRGs. To simulate post-remedial conditions, the elevated concentrations are replaced in the data set with a value equal to the typical detection limit for that compound. UCLs are calculated for this simulated post-remedial dataset and are also compared to the CUGs.

Tables 2 presents the data analysis results for sediments. PCBs and hexachlorobenzene are present in one area in EU6 identified for remediation (at location FB-SD08), and hexachlorobenzene and hexachlorobutadiene are present in an area in the DS Tributary (EU5) identified for remediation. Therefore, two UCL calculations are presented in Table 2 for these chemicals/EUs, simulating current and post-remedial conditions. Supplemental data collected in the north-east portion of the DS Tributary (EU5) in November 2008 are included in the EU5 calculations. Sample locations are spaced very closely in the November sampling relative to the summer sampling, and this introduces a bias to the calculation of the UCL. However, this area (of closely spaced samples) has been identified for remediation based on CRG exceedances. In order to avoid a biased calculation of the post-remedy UCL, this area is represented by only one sample location in the post-remedy calculation. The results for the sediment include the following:

[1] The OU4 ROD for the Floodplain Wetlands Area (1997) describes that the cleanup objectives "result in residual FWA contamination levels which are at or below the cleanup goals (CUGs) on average in each FEU on each side of the brook."

- *PCBs in sediments in EU2, EU3 and EU4*: The single sediment sample collected in EU2 has a PCB concentration that slightly exceeds the CUG (1.6 *vs.* 1.3 mg/kg) The UCL exceeds the CUG in EU3 and EU4 by factors of 2 and 5, respectively. This corresponds to cancer risks of 2 and 5 x 10^{-6} based on the CUG being set equivalent to a 1 x 10^{-6} cancer risk. The EU3 area is residential, however the risk distinction between 1 and 2 x 10^{-6} is minimal and no remediation is warranted. Although there are no residences in EU4, sediment in EU4 was designated as residential in the risk assessment (FWA soil was designated industrial). The lack of residences combined with the marginal CUG exceedance suggests that additional remediation does not out-weigh the disruption that would occur to the environment if remediation were initiated in EU4.

- *PCBs in sediments in EU5*: PCBs are generally not detected in EU5 with the exception of two locations, one of which is at the confluence with Fields Brook. The skewed distribution that results means that a UCL cannot be calculated, and in such instances the maximum concentration is substituted for the UCL. Although EU5 was designated residential for evaluation of the sediment, there are no residences in this area, suggesting that additional remediation does not out-weigh the disruption that would occur to the environment if remediation were initiated.

- *PCBs in sediments in EU6*: The UCL exceeds the CUG by a factor of 24 based on current conditions. One area (near sample FD-SD08) has been identified for remediation. Post-remediation, the UCL exceeds the CUG by a factor of 5. Similar to EU4, there are no residences in this area. CRG exceedances in the remainder of the EU are marginal, and this combined with the lack of residences suggests that additional remediation does not out-weigh the disruption that would occur to the environment if additional remediation were initiated.

- *Hexachlorobenzene and hexachlorobutadiene in EU5*: The UCLs for hexachlorobenzene and hexachlorobutadiene exceed their respective CUGs by factors of 10 and 2, respectively, based on current conditions. Following the proposed remediation of upstream DS Tributary sediments by Detrex, the hexachlorobenzene UCL in EU5 will exceed the CUG by a factor of 2, although the average concentration will be below the CUG. The post-remediation UCL for hexachlorobutadiene will be well below the CUG.

- *Hexachlorobenzene in EU6*: The UCL for hexachlorobenzene exceeds the CUG by a factor of 8. Following the remediation of the EU6 location (FB-SD08) identified on the basis of elevated PCBs, the hexachlorobenzene UCL will be well below the CUG.

Table 3 presents the results for the FWA soils. No CRG exceedances were observed in the FWA and no areas have been identified for remediation. Nevertheless, minor CUG exceedances exist for the following:

- *PCBs in EU3 and EU4*: The limited number of FWA soil samples in EU3 and EU4 are insufficient to calculate a UCL. The average concentration in EU4 exceeds the CUG by a factor of 2. This is due to the sample collected at location FB-SS12 at the edge of the brook in EU4. The sample has a concentration of 36 mg/kg, which is above the CUG but below the CRG. Remediation at this location is not proposed

because this is not a residential area and the concentration does not exceed the CRG.

- *PCBs in EU6*: The PCB UCL exceeds the CUG by factors of 4 and 2 on the north and south sides of the brook, respectively, corresponding to a cancer risk of 4 and 2 x 10^{-6} risk. The lack of residences combined with the minor CUG exceedance suggests that additional remediation does not out-weigh the disruption that would occur to the environment if remediation were initiated. The maximum concentration (34 mg/kg) on the south side of the brook is at location ML-SS03, which is sufficiently close to State Road that it may be removed incidentally as a result of the bridge repair work.
- *Hexachlorobenzene in EU2, EU3 and EU4*: There are insufficient soil samples in these three EUs to calculate the UCL, however, average concentrations are presented in Table 3. The average concentrations in EU2 and EU3 are below the CUG. The average concentration in EU4 is slightly above the CUG (7.1 *vs.* 6.7 mg/kg). No remediation is considered necessary for this marginal exceedance.
- *Hexachlorobenzene in EU6-north*: The UCL exceeds the CUG by a factor of 1.4, while the average concentration is well below the CUG. This is the result of a single sample location with a concentration of 10 mg/kg (compared to a CUG of 6.7 mg/kg). No remediation is considered necessary for this marginal exceedance.
- *Beryllium in EU2 and EU3*: There are insufficient samples to calculate the UCL in EU3, but the average concentration is equivalent to the CUG. The UCL exceeds the CUG in EU2 by less than a factor of 2. However, the current UCL is lower than the pre-remediation UCL (Table 1-1 in 1997 FWA ROD), and beryllium was not identified as a contaminant requiring remediation. Further, the maximum detected value of 1 mg/kg falls within the range of background reported for Ohio soils (Dragun and Chiasson, 1991).

3 Conclusions

The November, 2008 sampling in the DS Tributary identified elevated concentrations of hexachlorobenzene (above the remedial action level or CRG) at the north end of the tributary. Additional investigation and remediation activities are to be undertaken by Detrex to address the contamination in the DS Tributary.

Comparison of the average and upper confidence limit (UCL) concentrations of PCBs, hexachlorobenzene, chlorinated VOCs, and other key contaminants indicates that risks will be within an acceptable range following remediation of locations identified in EU6.

Yours truly,

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Teresa S. Bowers

Teresa S. Bowers, Ph.D.
Principal

Table 1
EU-5 Supplemental Sediment Sampling Data (November 2008)
Fields Brook Superfund Site, Ashtabula, Ohio

Sample ID Compounds	EU-5 CRG	DS-SD09	DS-SD10	DS-SD11	DS-SD12	DS-SD13	DS-SD13 (Duplicate)
VOCs (mg/kg)							
1,2-Dichloroethene (Total)		2.4	ND	220	29	36	6.9
Trichloroethene	1,854	4.3	ND	28	7.2	120	49
Tetrachloroethene	392	0.88	ND	120	6	170	110
1,1,2,2-Tetrachloroethane	102	0.92	ND	22	4.8	18	12
Total Chlorinated VOCs *		8.5	ND	390	47	344	178
SVOCs (mgkg)							
Hexachlorobutadiene		27	8.6	190	18	620	220
Hexachlorobenzene	39	33	19	**120**	34	ND	**130**
PCBs (mg/kg)							
Total PCBs	6.4	ND	ND	ND	ND	ND	ND

Notes:
Data in bold indicate exceedances of CRGs.
ND - Non-detect.
** - Only the select VOCs listed above were included in the Total Chlorinated VOC calculation.*

Table 2
Sediment UCL Summary - June-November 2008 Sampling Event
Fields Brook, Ohio

Compound	Exposure Unit with CUG Exceedance(s)	Sediment CUG (mg/kg) [1]	Sample Summary					Calculated UCL (mg/kg) [3]
			Total Number of Samples	Number of Detected Samples	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Average Concentration [2] (mg/kg)	June-November 2008
Total PCBs	EU-2	1.3	1	1	1.6	1.6	**1.6**	-
	EU-3	1.3	7	7	0.8	3.5	**1.9**	**2.6**
	EU-4	1.3	17	17	1.2	17	**4.5**	**6.5**
	EU-5[4]	1.3	13	2	0.89	14	**7.4** [6]	**14** [7]
	EU-6[5]	1.3	26	26	1.5 / 0.20	130 / 17	**10 / 5.0**	**31 / 6.7**
Hexachlorobenzene	EU-5[4]	6.4	13 / 8	13 / 8	0.27 / 0.27	130 / 18	**30** / 5.0	**66 / 13**
	EU-6[5]	6.4	11	11	0.28 / 0.28	53 / 2.2	5.4 / 0.67	**53** / 0.99
Hexachlorobutadiene	EU-5[4]	131	13 / 8	12 / 7	0.40 / 0.24	620 / 7.8	**69** / 1.4	**279** / 7.2

Notes:

Data in bold indicate UCL and average values exceeding the CUG.

1 - EUs- 2, 3, 4, 5 and 6 are residential exposure units.

2 - Average concentrations were computed assuming non-detects as half the detection limit.

3 - Dashed notation indicates insufficient data collected to calculate the UCL.

4 - For EU-5, all measurements were used for PCB calculations. For hexachlorobenzene and hexachlorobutadiene, the two values indicate results calculated

i) using all measurements.

ii) with sampling locations DS-SD08 to 13 replaced by a single value with a typical EU-5 detection limit.

5 - For EU-6, the two values indicate results calculated

i) using all measurements.

ii) with sampling location FD-SD08 replaced by a typical EU-6 detection limit.

6 - Average concentration computed with detected values only, due to high detection limits of PCBs in EU-5.

7- The maximum observed concentration was used as the UCL.

Table 3
Soil UCL Summary - June-November 2008 Sampling Event
Fields Brook, Ohio

Compound	Exposure Unit with CUG Exceedance(s) [1]	Soil CUG (mg/kg) [2]	Sample Summary					Calculated UCL (mg/kg) [4]
			Total number of Samples	Total number of detected Samples	Minimum Detected Concentration (mg/kg)	Maximum Detected Concentration (mg/kg)	Average Concentration [3] (mg/kg)	June 2008 [5]
Total PCBs	EU-3	1.0	4	4	0.030	1.2	0.61	-
	EU-4	6.0	3	3	0.083	36	**12**	-
	EU-6 (North)	6.0	12	10	0.29	50	**6.2**	**24**
	EU-6 (South)	6.0	12	12	0.11	34	5.0	**12**
Hexachlorobenzene	EU-2	0.8	7	1	0.85	0.85	0.21	-
	EU-3	0.8	4	3	0.22	0.95	0.47	-
	EU-4	6.7	3	1	21	21	**7.1**	-
	EU-6 (North)	6.7	8	6	0.43	10	1.9	**9.4**
Beryllium	EU-2	0.5	7	7	0.38	1.0	**0.61**	**0.76**
	EU-3	0.5	4	4	0.41	0.66	0.50	-

Notes:

Data in bold indicate UCL and average values exceeding the CUG.

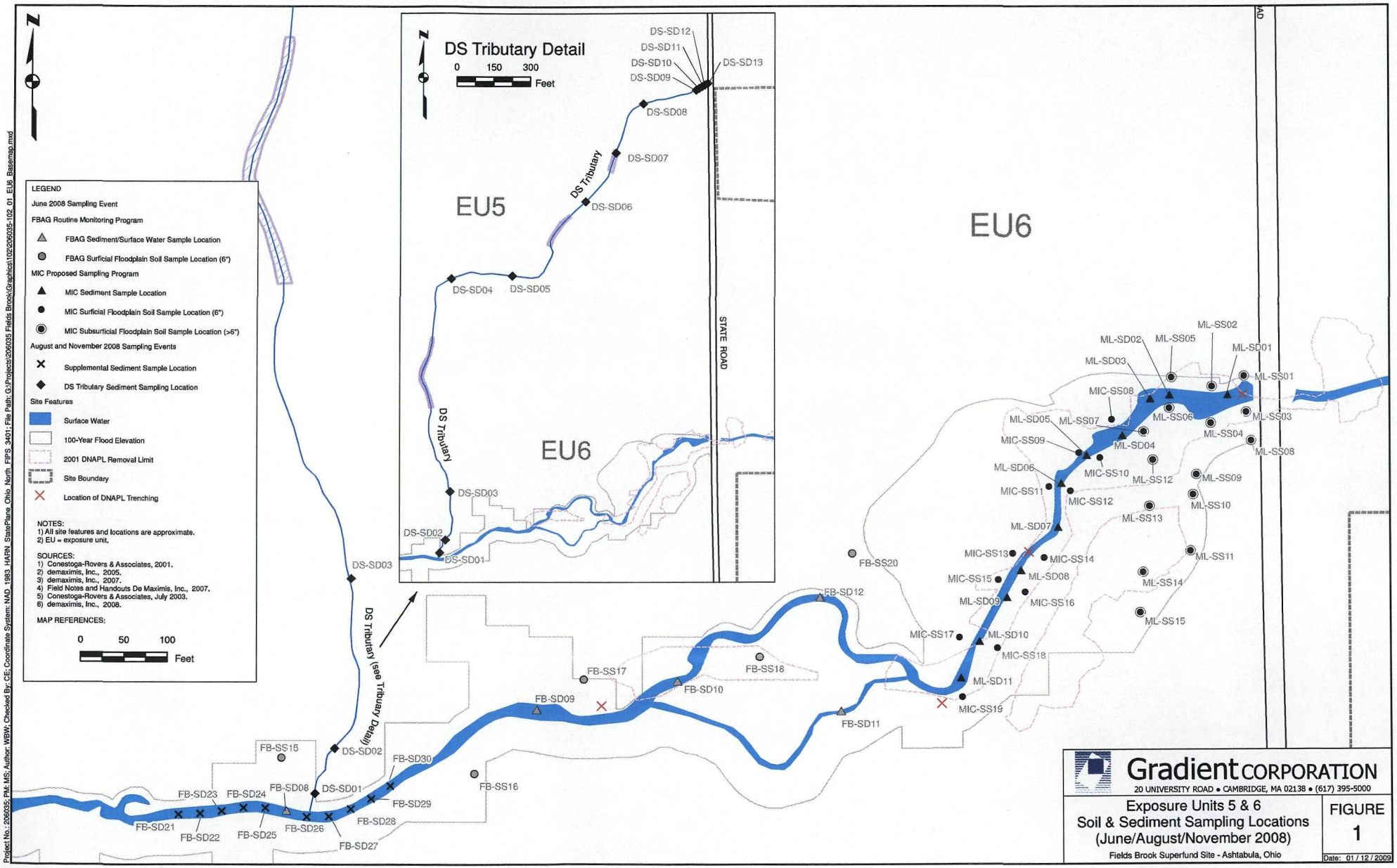
1 - No soil samples were collected in EU-5 (EU-5 does not have a floodplain).

2 - EUs-2 and 3 are residential exposure units; EUs-4 and EU-6 are industrial exposure units. Only analytical results of surficial soil samples collected in the top 1 foot were used in the

3 - Average concentrations were computed assuming non-detects as half the detection limit.

4 - Dashed notation indicates insufficient data collected in June 2008 to calculate the soil UCL.

5 - No soil samples were collected during the August or November 2008 supplemental sampling events.



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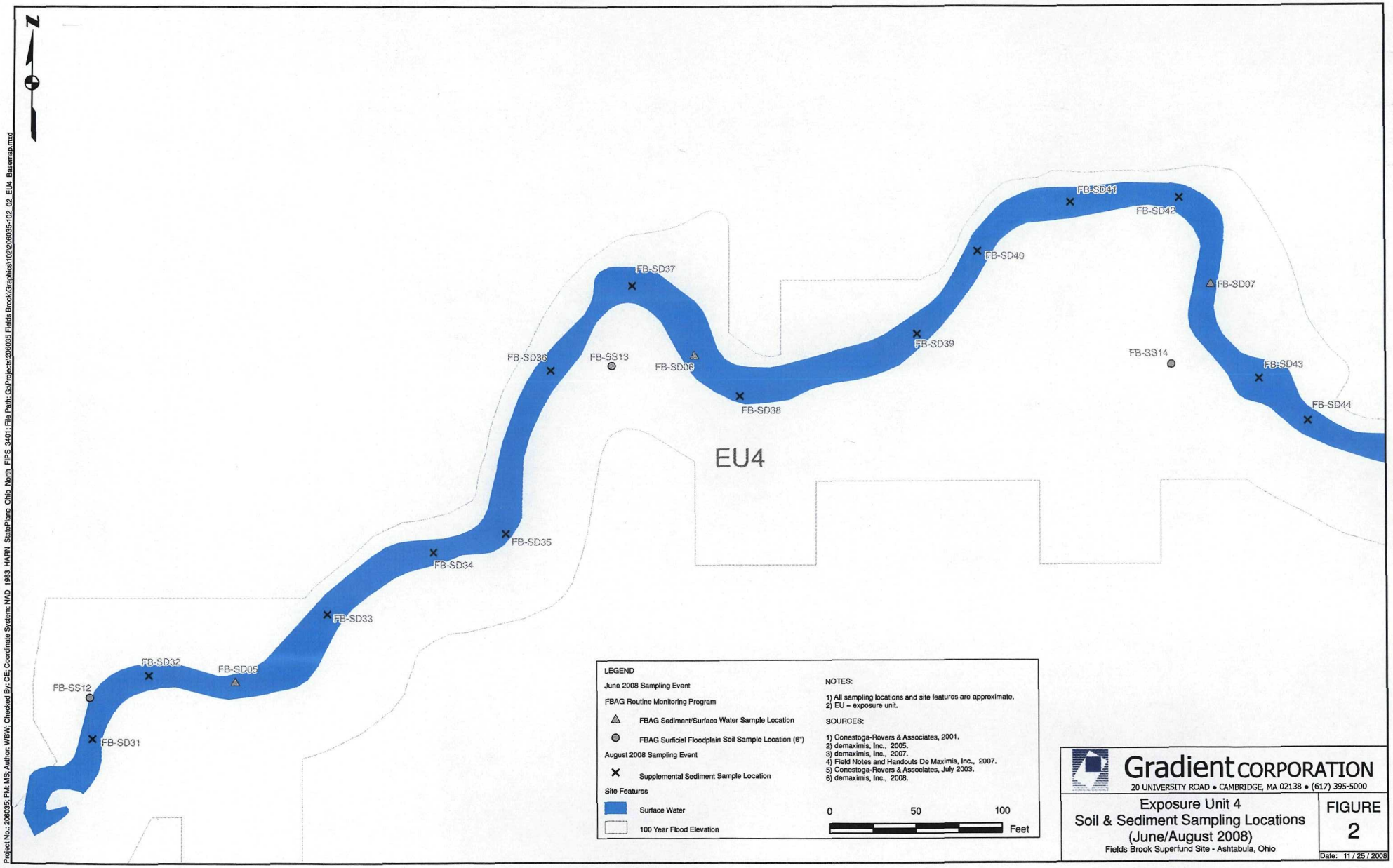
Exposure Units 5 & 6
Soil & Sediment Sampling Locations
(June/August/November 2008)
Fields Brook Superfund Site - Ashtabula, Ohio

FIGURE
1
Date: 01 / 12 / 2009



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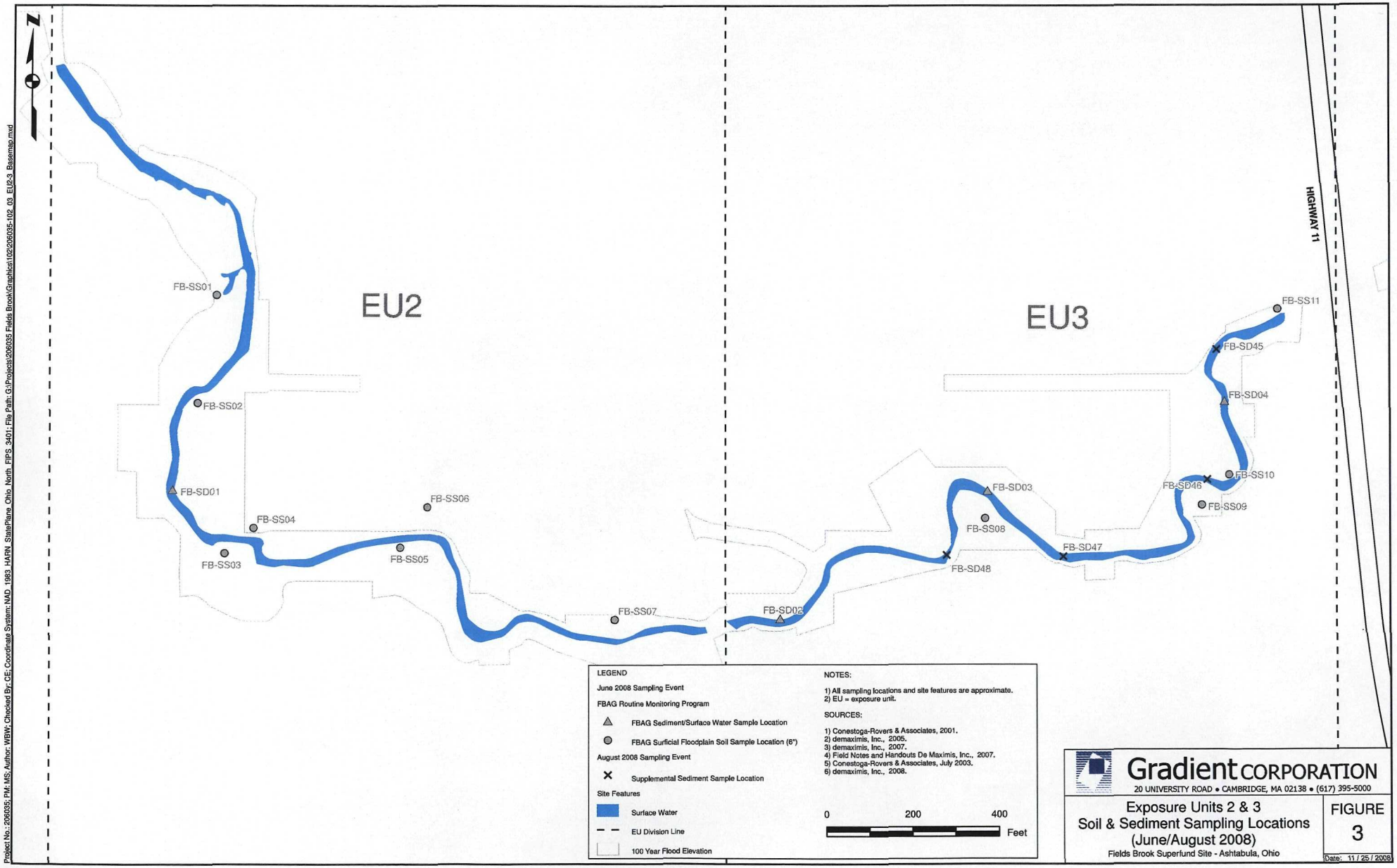
Exposure Unit 4
Soil & Sediment Sampling Locations
(June/August 2008)
Fields Brook Superfund Site - Ashtabula, Ohio

FIGURE
2

Date: 11 / 25 / 2008



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Exposure Units 2 & 3
Soil & Sediment Sampling Locations
(June/August 2008)
Fields Brook Superfund Site - Ashtabula, Ohio

FIGURE
3

Date: 11 / 25 / 2008

Appendix A

Table A-1
Fields Brook-Millennium 2008 Supplemental Sampling Event
Summary of Analytical Results for Sediment Samples

List of Compounds		EU5 CRGs	EU-5 DS-SD09 1108	DS-SD10 1108	DS-SD11 1108	DS-SD12 1108	DS-SD13 1108	DUP DS-SD13 1108
VOCs	(units are in mg/kg)							
	Dichlorodifluoromethane							
	Chloromethane		0 87 U	0 48 U	13 U	1 5 U	7 4 U	3 4 U
	Vinyl Chloride		0 87 U	0 48 U	13 U	1.5 U	7.4 U	3.4 U
	Bromomethane		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Chloroethane		0.87 U	0 48 U	13 U	1 5 U	7 4 U	3.4 U
	Trichlorofluoromethane							
	1,1-Dichloroethene		0 87 U	0 48 U	13 U	1.5 U	7 4 U	3.4 U
	Carbon Disulfide		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	1,1,2-Trichloro-1,2,2-Trifluoroethane							
	Acetone		3.5 U	1.9 U	52 U	6.2 U	30 U	14 U
	Methylene Chloride		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Methyl-T-Butyl Ether							
	1,1-Dichloroethane		0.87 U	0.48 U	13 U	1.5 U	7 4 U	3.4 U
	1,2-Dichloroethene (Total) *		2 4	0 96 U	220	29	36	6.9 U
	2-Butanone		3 5 U	1.9 U	52 U	6.2 U	30 U	14 U
	Chloroform		0 87 U	0.48 U	13 U	1 5 U	7 4 U	3 4 U
	1,1,1-Trichloroethane		0 87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Carbon Tetrachloride		0 87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Benzene		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	1,2-Dichloroethane		0 87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Trichloroethene	1,854	4 3	0.48 U	28	7.2	120	49
	1,2-Dichloropropane		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	Bromodichloromethane		0 87 U	0 48 U	13 U	1.5 U	7.4 U	3 4 U
	Cis-1,3-Dichloropropene		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	4-Methyl-2-Pentanone		3.5 U	1.9 U	52 U	6.2 U	30 U	14 U
	Toluene		0 87 U	0 48 U	13 U	1.5 U	7 4 U	3 4 U
	Trans-1,3-Dichloropropene		0.87 U	0.48 U	13 U	1.5 U	7.4 U	3.4 U
	1,1,2-Trichloroethane		0.87 U	0 48 U	13 U	1.5 U	7 4 U	3.4 U
	Tetrachloroethene	392	0.88	0 48 U	120	6	170	110
	2-Hexanone		3.5 U	1.9 U	52 U	6.2 U	30 U	14 U
	Dibromochloromethane		0.87 U	0 48 U	13 U	1 5 U	7 4 U	3 4 U
	1,2-Dibromoethane							
	Chlorobenzene		0.87 U	0 48 U	13 U	1.5 U	7 4 U	3 4 U
	Ethylbenzene		0.87 U	0 48 U	13 U	1.5 U	7.4 U	3.4 U
	Styrene		0.87 U	0 48 U	13 U	1.5 U	7 4 U	3 4 U
	Bromoform		0.87 U	0 48 U	13 U	1.5 U	7.4 U	3.4 U
	Isopropylbenzene							
	1,1,2,2-Tetrachloroethane	102	0.92	0 48 U	22	4 8	18	12
	1,3-Dichlorobenzene		12 U	8.1 U	87 U	13 U	400 U	120 U
	1,4-Dichlorobenzene		12 U	8.1 U	87 U	13 U	400 U	120 U
	1,2-Dichlorobenzene		12 U	8.1 U	87 U	13 U	400 U	120 U
	1,2-Dibromo-3-Chloropropane							
	1,2,4-Trichlorobenzene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Xylene (Total)		1.7 U	0.96 U	13 U	3 1 U	15 U	6.9 U
	Methyl Acetate							
	Cyclohexane							
	Methylcyclohexane							
	M,P-Xylene							
	O-Xylene							

Table A-1
Fields Brook-Millennium 2008 Supplemental Sampling Event
Summary of Analytical Results for Sediment Samples

List of Compounds		EU5 CRGs	EU-5					
			DS-SD09 1108	DS-SD10 1108	DS-SD11 1108	DS-SD12 1108	DS-SD13 1108	DUP DS-SD13 1108
SVOCs	(units are in mg/kg)							
	Benzaldehyde							
	Phenols		12 U	8.1 U	87 U	13 U	400 U	120 U
	Bis(2-Chloroethyl)Ether		12 U	8.1 U	87 U	13 U	400 U	120 U
	2-Chlorophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	2-Methylphenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,2'-Oxybis(1-Chloropropane)		12 U	8.1 U	87 U	13 U	400 U	120 U
	Acetophenone							
	4-Methylphenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	N-Nitroso-Di-N-Propylamine		12 U	8.1 U	87 U	13 U	400 U	120 U
	Hexachloroethane		12 U	8.1 U	87 U	13 U	550	160
	Nitrobenzene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Isophorone		12 U	8.1 U	87 U	13 U	400 U	120 U
	2-Nitrophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,4-Dimethylphenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	Bis(2-Chloroethoxy)Methane		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,4-Dichlorophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	Naphthalene		12 U	8.1 U	87 U	13 U	400 U	120 U
	4-Chloroaniline		12 U	8.1 U	87 U	13 U	400 U	120 U
	Hexachlorobutadiene		27	8.6	190	18	620	220
	Caprolactam							
	4-Chloro-3-Methylphenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	2-Methylnaphthalene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Hexachlorocyclopentadiene		56 U	39 U	420 U	62 U	1900 U	560 U
	2,4,6-Trichlorophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,4,5-Trichlorophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	1,1'-Biphenyl							
	2-Chloronaphthalene		12 U	8.1 U	87 U	13 U	400 U	120 U
	2-Nitroaniline		56 U	39 U	420 U	62 U	1900 U	560 U
	Dimethyl Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,6-Dinitrotoluene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Acenaphthylene		12 U	8.1 U	87 U	13 U	400 U	120 U
	3-Nitroaniline		56 U	39 U	420 U	62 U	1900 U	560 U
	Acenaphthene		12 U	8.1 U	87 U	13 U	400 U	120 U
	2,4-Dinitrophenol		56 U	39 U	420 U	62 U	1900 U	560 U
	4-Nitrophenol		56 U	39 U	420 U	62 U	1900 U	560 U
	2,4-Dinitrotoluene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Dibenzofuran		12 U	8.1 U	87 U	13 U	400 U	120 U
	Diethyl Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	4-Chlorophenyl Phenyl Ether		12 U	8.1 U	87 U	13 U	400 U	120 U
	Fluorene		12 U	8.1 U	87 U	13 U	400 U	120 U
	4-Nitroaniline		56 U	39 U	420 U	62 U	1900 U	560 U
	4,6-Dinitro-2-Methylphenol		56 U	39 U	420 U	62 U	1900 U	560 U
	N-Nitrosodiphenylamine(1)		12 U	8.1 U	87 U	13 U	400 U	120 U
	4-Bromophenyl Phenyl Ether		12 U	8.1 U	87 U	13 U	400 U	120 U
	Hexachlorobenzene	39	33	19	**120**	34	400 U	**130**
	Atrazine							
	Pentachlorophenol		12 U	8.1 U	87 U	13 U	400 U	120 U
	Phenanthrene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Anthracene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Carbazole		12 U	8.1 U	87 U	13 U	400 U	120 U
	Di-N-Butyl Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	Fluoranthene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Pyrene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Butyl Benzyl Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	3,3'-Dichlorobenzidine		56 U	39 U	420 U	62 U	1900 U	560 U
	Bis(2-Ethylhexyl)Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	Benzo(A)Anthracene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Chrysene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Di-N-Octyl Phthalate		12 U	8.1 U	87 U	13 U	400 U	120 U
	Benzo(B)Fluoranthene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Benzo(K)Fluoranthene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Benzo(A)Pyrene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Indeno(1,2,3-Cd)Pyrene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Dibenzo(A,H)Anthracene		12 U	8.1 U	87 U	13 U	400 U	120 U
	Benzo(G,H,I)Perylene		12 U	8.1 U	87 U	13 U	400 U	120 U

Table A-1
Fields Brook-Millennium 2008 Supplemental Sampling Event
Summary of Analytical Results for Sediment Samples

List of Compounds		EU5 CRGs	EU-5					
			DS-SD09 1108	DS-SD10 1108	DS-SD11 1108	DS-SD12 1108	DS-SD13 1108	DUP DS-SD13 1108
PCBs	**(units are in mg/kg)**							
	Aroclor-1016		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1221		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1232		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1242		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1248		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1254		58 U	64 U	44 U	5.1 U	490 U	460 U
	Aroclor-1260		58 U	64 U	44 U	5.1 U	490 U	460 U
	Total Aroclor [1016,1221,1232,1242,1248,1254,1260]	6.4	U	U	U	U	U	U
Metals	**(units are in mg/kg)**							
	Silver							
	Aluminum							
	Barium							
	Beryllium							
	Calcium							
	Cadmium							
	Cobalt							
	Chromium							
	Copper							
	Iron							
	Potassium							
	Magnesium							
	Manganese							
	Sodium							
	Nickel							
	Thallium							
	Vanadium							
	Zinc							
	Lead							
	Selenium							
	Antimony							
	Arsenic							
	Mercury							
RAD								
	Radium-226							
	Radium-228							
	Total Radionuclides							

Notes:
U = Analyte was analyzed for but not detected
Blank cells = Sample not analyzed for the compound.
** = Only 1,2 Dichloroethene (Total) was reported for these samples.*
Data in bold indicate exceedances of CRGs